## Claim Rejections - 35 U.S.C. § 112 Lack of Support

**[0004]** Applicant has at the present time cancelled claim 32. The specification and incorporated references contain support for the claim, but applicant is canceling it at this time to facilitate prosecution.

### Double Patenting

**[0005]** A terminal disclaimer will be filed in this case to overcome any outstanding double patenting rejections prior to issuance of the later-filed case.

### Art Rejection

**[0006]** The pending claims stand rejected under 35 USC 103a as unpatentable over CHENG '174 in combination with PULIZZI and/or EMM 96 and/or Chang. Applicant respectfully traverses.

### The Invention

**[0007]** The present invention is directed to a power supply and related methods that are particularly suited to modern networking applications. A device according to the invention is designed for easy installation for controlling and power cycling network devices such as routers.

### Response to Rejection

**[0008]** The claims, as amended, are not anticipated or rendered obvious by controllable power supplies (such as discussed in the EMM reference) that teach a separate control cable is needed to control the power supply. The claims, as amended, also are not anticipated or rendered obvious by power supplies (such as discussed in Cheng) that teach that a separate control wire connection, with a separate socket, is needed to control the power supply. The claims, as amended, also are not rendered obvious by power supplies (such as shown in Pulizzi) that teach that data commands must enter the power supply and be processed by a microcontroller in order to control the operation of power outlets. The claims, as amended, also are not rendered obvious by devices (such as Change) that teach that a presence detection signal may be provided on a wire of a data cable and that power may be supplied from the device that also supplies the presence detection signal.

**[0009]** In fact, these references, teach away from the present invention in that the references each discuss a different solution to the problem of remotely affecting a power supply.

**Chang U.S. 5991885**

**[0010]** The patent discusses a *network* that detects the presence of a remote terminal and if the terminal is determined to be an infrared hub, the network device can provide power thereto. The patent indicates that a presence request signal is used in some configurations. (Col. 8: line 23-30.) The patent also indicated that this detection signal does not connect to used lines. (Col. 10: line 5-8.) Chang **does not** discuss sending a signal to a housing on an unused wire to turn power on or off and does not discuss a power supply per se, instead Chang discusses detecting the presence of a second device from a first device and supplying power to the second device from the first device. (See col. 3: line 19-37.)

**[0011]** Thus, there is no discussion or illustration in Chang of the limitations **"a first network socket ...able to receive a control signal transmitted over a wire of a network cable."** Chang instead discusses that detecting is performed over a network cable.

**[0012]** Further, Chang does not teach or suggest the claim 1 limitations "control circuitry within said housing operatively connected with said first socket, and said power supply socket wherein power to said power supply socket is able to be turned on or off in response to said control signal received at said first socket." Instead, Chang teaches that any turning on or off of the power supply is done be the FIRST DEVICE, I.E. THE DEVICE THAT SENT THE DETECTION SIGNAL.

**Cheng U.S. 5644174**

**[0013]** The patent discuss a power sequencer, with further provisions for daisy chaining. CONTROL IN is described as a separately generated control signal that can also be used for daisy chaining. There is no illustration or discussion whatsoever anywhere in the reference of a network provided signal or standard network port being used for controlling operation. The CONTROL IN signal is not carried over a network cable that also carries data. The connection of the CONTROL IN signal is not a standard network connection. Further, the present invention does not discuss or teach daisy chaining, but instead teaches that each device is controlled separately and that any pass through socket is for passing through data signals, not passing through a control daisy-chain signal.

**[0014]** While Cheng does appear to discuss a control input socket 204, nothing in Cheng suggests that such a socket is a standard network socket or is capable of carrying standard network

data signals that are not interfered with by the control signals carried on the same cable. Thus each of the independent claims contain limitations not taught or discussed by Cheng.

**EMM 96**

**[0015]** Furthermore, none of the previously cited limitations are shown in any of the devices outlined in the EEM 1996 Pulizzi Engineering Inc. manual relied by the Examiner. While this manual does seem to discuss rack mounted power supplies, the manual does not teach any of the above limitations. **Therefore, Cheng and the EEM 96 catalog together do not even show all of the limitations of Applicant's claimed invention. Applicant therefore respectfully requests that the Examiner's rejection of all claims based on this combination be withdrawn.**

**[0016]** Because the catalog relied on by the Examiner did not specify in detail operation of the devices mentioned, Applicant has located additional information about these power supplies referenced by their model number and has submitted this additional information with the attached IDS. This additional information demonstrated that none of the cited power supplies use a standard network signal or network connection to control ON/OFF operation. These supplies, instead, require a separate signal to be run to the supplies from a computing device, especially for the purpose of remote operation. In some designs, this control signal, can be passed through the power supply to another power supply only to provide for a number of power supplies to be controlled by the same control signal in a daisy-chain or parallel fashion.

**[0017]** The present invention, in contrast, does not requires a separate control signal or cable to be run to the power supply control mechanism. Instead, the invention allows a standard network cable, using standard network connections and commands to be plugged into the power supply in order to control remote operation.

**Pulizzi U.S. 5923103**

**[0018]** The patent appears to be related to the Pulizzi Engineering products that the Examiner also cited and that have been addressed by the Applicant. The patent discusses a switched-output controller apparatus with repeater function that includes a microcontroller 18 that can communicate with remote control signals through various sockets e.g. 142, 144, 160, 162.

**[0019]** As shown in the figure and discussed in the patent, all eight relays 60-74 are controlled by signals from the microcontroller 18 through a relay driver 24. The patent suggests that

there is a command protocol for instructing microcontroller 18 in how to schedule switch operation of the outlets 40-54 through the relays. As shown in the figure and discussed in the patent, there is no direct operative connection between a signal line in any of sockets 142, 144, 160, 162 and the relays.

**[0020]** The patent discusses at length that communication to the relays is through an RJ232 connection that allows microcontroller 18 to receive signals FROM A MODEM. (See Col. 2: Lines 46-50 and Col. 8: Lines 34-58.)

**[0021]** The patent also discusses at length that if it is desired to control devices located at different locations, an RS485 or RS482 type network connection is made using a different set of RS11 connectors. RS422 and RS485 interfacing is known in the art as using a twisted-pair wire (i.e. 2 wires) for each signal (for example see www.kksystems.com/serdesc1.html). The main difference between RS422 and RS485 is as follows: RS422 has no tri-state capability (its driver is always enabled) and it is therefore usable only in point-to-point communications (although an RS422 device can act as a Master on a 4-wire RS485 system). RS485 has tri-state capability and can therefore be used in multidrop systems. RS422 is full-duplex, i.e. data can flow in both directions simultaneously - and often does. RS422 uses two separate twisted pairs. RS422 is often used simply for extending RS-232 cables. RS485 is half-duplex. It exists in two varieties: 2-wire (which uses a single twisted pair) and 4-wire (which uses two twisted pairs like RS422). RS485 systems are usually "Master/Slave"; each Slave device has a unique address and it responds only to a correctly addressed message (a "poll") from the Master. A Slave never initiates a dialogue. In a 2-wire system, all devices (including the Master) must have tri-state capability. In fact, it appears that a major advance claimed by Pulizzi is the need for, and presence of, TWO ENTIRELY DIFFERENT AND SEPARATE NETWORK CONNECTIONS for the device to operate (See Abstract, 2d to last sentence and elsewhere throughout.) In particular, Pulizzi discusses that prior systems had just RS232 networks, which were limited to 200 foot operation (Col. 2: line 45 to Col. 3, line 63) and a major advance taught in the patent is use of two separate "in parallel" networks.

**[0022]** Thus, there is no discussion or illustration in Pulizzi of the limitations provided in claim 1. Pulizzi instead teaches away from the invention in that Pulizzi discusses that to control an outlet, communication must first be made to a microcontroller 18 through a modem connection vi

RJ11 connectors. This does not teach or suggest a standard network connection that also carries data. Further Pulizzi discusses that communication with additional controlled outlets must be accomplished through an entirely separate master/slave device type communication through an RS232 or RS485 or RS422 type connection, with a further limitation that the devices cannot be more that 4,000 feet apart.

**[0023]** Further, Pulizzi teaches away in that it describes using a modem connection for connecting to the outside world and using a separate, master/slave device-type RS232 etc. type connection that does not otherwise carry any network data.

**Response to Obviousness Rejection under 35 U.S.C. §103(a)**

**[0024]** The pending claims stand rejected under 35 U.S.C. §103(a) as allegedly obvious in light of the cited references.

**[0025]** For ease of reference, the Applicant repeats here his response to the obviousness rejection. However, in summary, Applicant respectfully and strongly objects to the examiner's assertion that "the examiner has provided such motivations such as allowing use in standard rack mount network systems and allow remove power control without additional physical attachment, simple and transparent power control as stated in the prior art rejections." (Page 7 of the Office Action.) Here, the Examiner has used the advantages of the claimed invention to select from several pieces of prior art, none of which operate to provide those advantages, and then asserted that those pieces could be fit together to make Applicant's invention. This the Examiner cannot do. The Examiner is respectfully reminded that he has the burden of showing a suggestion or motivation for making the necessary combination IN THE PRIOR ART. Claiming the advantages first demonstrated by the Applicant's invention as the motivation for combining items extracted from a handful of other references is both unfair to Applicant and not allowed by relevant case law or patent office practice as discussed below. Therefore, the obviousness rejections of the pending claims should be withdrawn.

**[0026]** The Examiner is again reminded that an obviousness rejection requires citation of a teaching or suggestion IN THE PRIOR ART to modify the references in the manner indicated by the Examiner. As stated by the Court of Appeals for the Federal Circuit:

> Our case law makes clear that the best defense against hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. **"Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight." Id.** [emphasis added] *Ecolochem, Inc. v Southern-California Edison Company,* __ USPQ2d ___ (Fed. Cir. 2000)

*See also:*

> The mere fact that the prior art may be modified in the manner suggested by the Examiner **does not** make the modification obvious **unless the prior art suggested the desirability of the modification.** [emphasis added] *In re Fritch*, 23 USPQ 2d 1780, 1783-1784 (Fed. Cir. 1992)

**[0027]** In making the *prima facie* rejection under §103(a), the Examiner has failed to establish, with particularity, why it was apparent to construct and/or operate a remotely controllable power supply as recited in the presently pending claims particularly when all of the references cited by the examiner suggest different methods for affecting or controlling power to a device some distance from the supply. Simply alleging that because some ways were known for remotely affecting or detecting or controlling power to a networked device is not making specific findings why it was apparent to remotely control power to a device as recited in the pending claims.

**[0028]** As stated by the Federal Circuit:

> A critical step in analyzing the patentability of claims pursuant to section 103(a) **is casting the mind back to the time of invention**, to consider the thinking of one of ordinary skill in the art, **guided only by the prior art references and the then-accepted wisdom in the field**. *See Dembiczak* , 175 F.3d at 999, 50 USPQ2d at 1617 . **Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher**." Id. (*quoting W.L. Gore & Assocs., Inc. v. Garlock, Inc.* 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)). [emphasis added] (*In Re Werner Kotzab,* 217 F.3d 1365, 55 USPQ2d 1313, ____ (Fed. Cir. 2000)

**[0029]** In the instant case, lacking the teaching provided in the specification, there is nothing to lead one of ordinary skill to construct a power supply using the method of remote control as recited in the claims. The only "evidence" presented by the Examiner for such a motivation is the Examiner's assertion that the advantages cited by the inventor himself for his claimed invention would have provided motivation to modify and combine the prior art. The Examiner is here engaging in exactly the hindsight that the Federal Circuit has warned against. **The Examiner has provided NO EVIDENCE that either the PRIOR ART or the knowledge generally available to one of ordinary skill in the art at the time of the invention suggested the modifications and combinations of prior art relied on by the Examiner to reject the pending claims.** The rejection of claims under 35 U.S.C. §103(a) should be withdrawn.

**[0030]** In view of the foregoing, Applicant believes all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

**[0031]** If a telephone conference would expedite prosecution of this application, the Examiner is invited to contact the undersigned by telephone at (510) 769-3508 or email at sjl@quinelaw.com.

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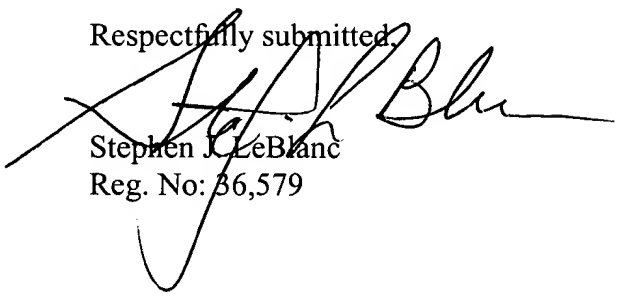
PATENT TRADEMARK OFFICE

Respectfully submitted,



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## APPENDIX A

**"Marked up" claims and specification illustrating the amendments made to 09/379411 with entry of this amendment, with added text underlined and deleted text struck through. The "|" mark outside the left margin indicates lines with text changes.**

1. A controllable power supply comprising:

a mounting having at least one distinguishable surface;

a first network socket located on said distinguishable surface; wherein said first network socket is able to receive a standard network cable connector and able to receive a control signal transmitted on one wire of a network cable also carrying network data communication signals on one or more separate data wires;

a controlled power output socket;

control circuitry operatively connected with said first network socket and said controlled power output socket wherein power to said controlled power output socket can be turned off in response to a signal received on a control signal pin connection of said first network socket; and

a power input connection for connecting to an external power source.

2. The device according to claim 1, further comprising:

an indicator light operatively connected to said control circuitry for indicating whether power to said power output socket is on or off.

3. The device according to claim 1, wherein said control circuitry comprises a control relay.

5. The device according to claim 1 wherein said mounting comprises a top surface, a bottom surface, a front surface, a rear surface, a left surface, and a right surface.

6. The device according to claim 5, wherein said first network socket is located on said front surface and said power output socket is located on said rear surface.

7. The device according to claim 5, wherein said control sockets ~~and~~ said controlled power output ~~power line~~ socket are located on said rear surface.

8. The device according to claim 5 wherein said top surface and said bottom surface are parallel planes between 1.5 and 2.0 inches apart.

9. The device according to claim 1 wherein said power supply is mountable on a computer device rack.

13. A method for providing a power-cycle reboot in a rack-mounted computing device comprising:

deploying a single rack unit power supply wherein sockets and control circuitry ~~may~~ are able to be contained within a housing having a constrained height:

placing a pair of network sockets on a surface of said housing;

placing a controlled power supply outlet on a surface of said housing; and

placing control circuitry within said housing, said control circuitry operatively connected with one signal pin of said pair of network sockets and said power output socket wherein power to said power output socket may be turned on or off in response to a signal on said one signal pin and wherein communication signals on other pins may be passed through said pair of network sockets.

14. A method according to claim 13 further comprising:

providing an input supply socket for accepting a detachable power line for connection to an external power source.

16. A method according to claim 13 further comprising:

placing said network sockets on a first surface of said housing;

and placing said power output sockets on a second surface of said housing.

17. A method according to claim 13 further comprising:

placing said network sockets and said output sockets on a surface of said housing arranged to align with a computing device for which a power cycle reboot is being provided.

21. The device according to claim 1 wherein said controlled power output socket is located on a different distinguishable surface of said mounting.

22. A apparatus for providing a plurality of independently controllable power supplies comprising:

two or more independently controlled sets of power outlets;

for each independently controlled set of power outlets, a controllable relay operationally connected between said power outlet set and a power source;

for each independently controlled set of power outlets and each controllable relay; a first network connection socket having a plurality of pin connections, with one of said pin connections used as a control connection for controlling operation of said relay, said control connection not used to carry data;

such that power supplied on one set of said independently controlled sets of power outlets can be turned on or off by applying a control signal to said control connection.

23. The device according to claim **22** wherein said apparatus is mounted so that it may be easily installed on a network device rack.

24. The device according to claim **22** wherein each of said controlled sets comprise one power outlet.

25. The device according to claim **22** wherein each of said controlled sets comprise a plurality of power outlets.

26. The device according to claim **22** further comprising:

for each independently controlled set of power outlets, an indicator light operatively connected to said set's corresponding controllable relay and corresponding control connection to indicate the sate of said independently controlled set of power outlets.

27. The device according to claim **22** wherein each of said relays is in a normally closed position such that power is supplied to each of said independently controlled sets of power outlets unless a control signal is applied to a set's corresponding control connection.

28. The device according to claim **22** wherein each of said relays is in a normally open position such that power is only supplied to each of said independently controlled sets of power outlets when a control signal is applied to a set's corresponding control connection.

29. The device according to claim **22** further comprising, for each of said first network connection sockets, a second network socket allowing network communication signals to pass between said first and said second network sockets.

30. The device according to claim **22** wherein each of said network connection sockets has at least eight pin connections.

31. The device according to claim **30** wherein each of said relays is controlled by two relay controls and wherein one of said relay controls is operationally connected to a control connection of its corresponding network socket and the other of said relay controls is operationally connected to a ground signal connection of its corresponding network socket.

~~32. The device according to claim 31 wherein said control connection is made to a line carrying a data terminal ready (DTR) signal provided on a standard network connector.~~

33. The device according to claim **22** further comprising:
at least three independently controlled sets of power outlets and at least three corresponding controllable relays, and at least three corresponding first network connection sockets.

34. The device according to claim **22** further comprising:
at least four independently controlled sets of power outlets and at least four corresponding controllable relays, and at least four corresponding first network connection sockets.

35. The device according to claim **22** further comprising:
at least eight independently controlled sets of power outlets and at least eight corresponding controllable relays, and at least eight corresponding first network connection sockets.

36. The device according to claim **34** further wherein the apparatus is housed in a housing having a top and bottom surface and wherein said top surface and said bottom surface are parallel planes between 1.5 and 2.0 inches apart and can be mounted in a computer device rack and only occupy one rack unit.

37. The device according to claim **35** further wherein the apparatus is housed in a housing having a top and bottom surface and wherein said top surface and said bottom surface are parallel planes between 1.5 and 2.0 inches apart and can be mounted in a computer device rack and only occupy one rack unit.